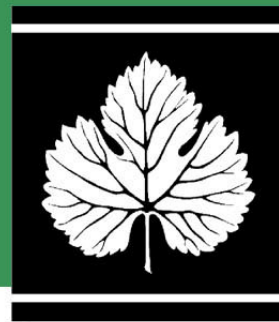


Leading Environmental Practice

KEEPING OUR MEMBERS INFORMED



Contents

<i>About biodiversity</i>	1
<i>The three principles of biodiversity</i>	2
<i>Case studies</i>	2
<i>Vegetation management strategy</i>	3

“Biodiversity adds value to the SA wine industry”

Important information

The following information sheet has been prepared based on the information available to the South Australia Wine Industry Association at the date of issue.

It is intended that this information sheet will be updated as new information becomes available.

This publication may not be reproduced, stored in a retrieval system, or transmitted in whole or in part, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the written permission of the South Australian Wine Industry Association Incorporated. Any redistribution or reporting on any findings, information or data contained within this report without the written permission of the South Australian Wine Industry Association Incorporated is strictly prohibited.

South Australian Wine Industry Association
1st Floor Industry Offices,
National Wine Centre, Botanic Road,
Adelaide SA 5000.
Phone: (08) 8222 9277;
Fax: (08) 8222 9276;
Web: www.winesa.asn.au

Document id: LEP01
Date of issue:

Version: 1.0
8 May 2012

About Biodiversity ...

The South Australian (SA) wine industry commits to protecting, enhancing and where possible restoring native biodiversity through a proactive approach and working with other stakeholders to deliver local and regional scale biodiversity outcomes.

What does biodiversity mean to the South Australian wine industry?

Biodiversity means the variety of life on Earth, including humans, animals, plants and the ecosystems or communities they make up.

For the SA wine industry, biodiversity is taken to mean native or wild biodiversity and in particular, native vegetation, as the provision of the appropriate habitat is likely to provide the right conditions for other biodiversity, such as native fauna, to flourish.

What is the value of biodiversity to the South Australian wine industry?

Biodiversity adds value to the SA wine industry by contributing:

- Valuable ecosystems services – including natural pest management, soil productivity and water quality
- Enhanced tourism experiences
- An improved industry reputation both locally and globally
- Value to the community through the connection between a healthy catchment and a healthy economy
- Value to the individual and society through the preservation of Australia's animals, plants and landscapes

How does the South Australian wine industry impact and manage biodiversity?

- The use of **agrochemicals** for pest, disease and weed control can have negative impacts on native biodiversity. SA wine industry members are encouraged to select agrochemicals that have the least environmental impact.
- The presence of **noxious weeds and feral animals** present risks to native flora and fauna. SA wine industry members are required to control these under state legislation.
- **Soil and groundcover management** forms a critical part of vineyard management. SA wine industry members are encouraged to keep exposed bare ground to a minimum, maintain healthy soils and botanically diverse inter-rows.
- Application of **nutrients** can be a source of contamination if not managed appropriately. SA wine industry members are encouraged to apply nutrients only in response to petiole and/or soil tests and to minimise nutrient losses through leaching, run-off and atmospheric losses.
- The use of **equipment** in vineyards and surrounding areas of biodiversity can have a negative environmental impact as a result of soil compaction or noise in sensitive environments. SA wine industry members are encouraged to minimise and control the use of equipment to ensure biodiversity is not compromised.
- **Extraction of water** to irrigate vineyards can have adverse effects on waterways, water resources and the ecosystems that depend on them. SA wine industry members are encouraged to use the most efficient irrigation technology and utilise production practices that minimise the draw on water resources e.g. soil moisture monitoring, mulching and irrigating at night.

SOUTH AUSTRALIAN WINE INDUSTRY ASSOCIATION INCORPORATED

Leading Environmental Practice

KEEPING OUR MEMBERS INFORMED



- **Protect** existing native vegetation from degradation
- **Enhance** existing native vegetation
- **Restore** degraded areas to their former condition



Wildlife returns to the floodplain at Markaranka after the flooding

Protect, enhance, restore—tenets of sound biodiversity conservation management

Sound biodiversity conservation management is based on three simple principles— protect, enhance and restore.

- The first principle is to **protect** existing native vegetation from degradation. Examples of protective actions include fencing sensitive areas and excluding stock from grazing in those areas.
- The second principle is to **enhance** current native biodiversity assets. Examples include planting understorey species in native vegetation patches that have predominantly overstorey species and increasing the size of native vegetation patches.
- The third principle is to **restore** degraded areas to their former condition.

By applying these basic principles, members of the South Australian wine industry are able to put in place a list of prioritised actions to ensure that good biodiversity conservation is practiced in the industry.

Biodiversity conservation management plans are a requirement for participation in EntWine—the Australian wine industry’s environmental assurance program. Many South Australian companies participate in this program.

CASE STUDY—Treasury Wine Estates

Treasury Wine Estates’ Markaranka vineyard on the River Murray in South Australia includes a substantial area of River Murray floodplain.

Reduced flows down the River Murray meant the trees on the floodplain hadn’t had a good drink for a number of years and were starting to suffer.

In 2006, 2,000 million litres of water was pumped onto the floodplain to simulate a flooding event. The water was donated by Treasury Wine Estates and the South Australian Murray Darling Natural Resource Management Board.

Three years later, in May 2009, a further 2,200 million litres of water, provided by the Federal Government, was pumped onto the floodplain.

The health of the trees has improved and the birdlife and frogs have benefited from this influx of water with approximately 1,000 ducks and 500 black swans now inhabiting and breeding in the area.

Songs sung by the vast numbers of frogs can be heard near and far, numerous parrots’ nests have been observed and a rare Wild Cucumber plant has been discovered.

It is estimated around 40,000 tonnes of carbon dioxide is stored in the trees at Markaranka. That’s comparable to the greenhouse gas emissions generated by around 8,000 passenger vehicles on the road for a year.

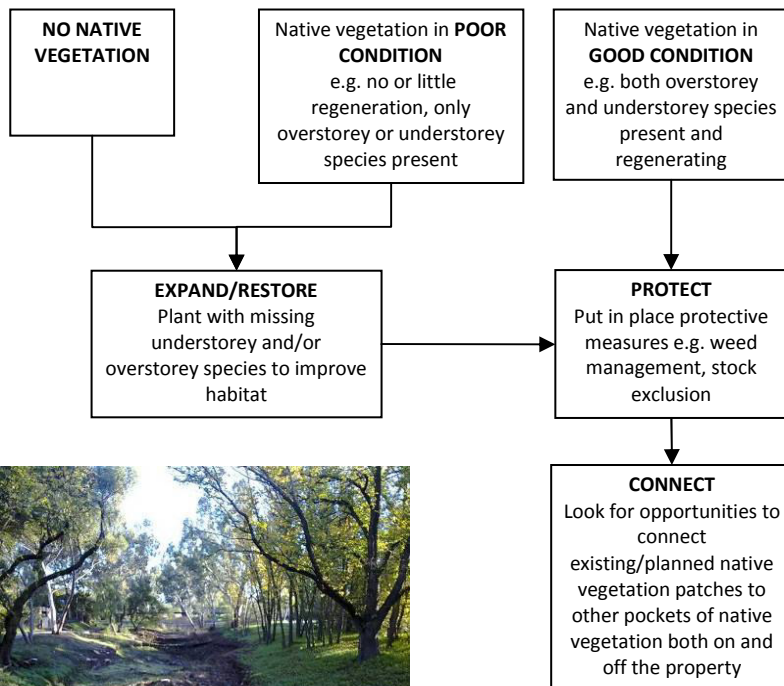
Treasury Wine Estates is now looking at long-term strategies to improve the ecological condition of the site. This is an exciting and unique project for Treasury Wine Estates, government, the community and the River Murray.

SOUTH AUSTRALIAN WINE INDUSTRY ASSOCIATION INCORPORATED



Vegetation management strategy

Does my patch count?



Taylor's Wines - one of the sites (Auburn township) after weed control

CASE STUDY—Taylor's Wines

Seven kilometers of the Upper Wakefield River meanders through the Taylor's Wines' vineyard estate in Auburn, Clare Valley. In 2007, Taylors Wines embarked on the task of facilitating a regional approach to restoring the ecological health of the Upper Wakefield River.

Through a collaborative approach with a number of stakeholders, the Upper Wakefield Catchment Natural Resource Management (UWCNRM) Group was formed in March 2008.

The Group's aim is to implement components of the 2000 EPA Wakefield River Management Plan which include:

- Integrating watercourse management actions between landholders and key stakeholders
- Working on rehabilitation of the river on an issue by issue basis rather than property by property
- Reintroducing biodiversity into the river system.

Physical work commenced at two sites in April/May 2009 to reduce the dominance of pest weed species.

The sites were replanted with appropriate indigenous and endemic flora species through tubestock and direct seeding to promote increased biodiversity, improved watercourse management and improve habitat. Over 3000 indigenous flora species have been planted to date.

Taylors Wines are committed to assessing and managing site wide biodiversity on their own property. A baseline biological survey is scheduled for 2011, to provide the basis for a structured Biodiversity Conservation Management Plan.

Naturemaps

NatureMaps is the South Australian Department for Environment and Heritage web based (online) mapping site.

The site has been designed to support the SA Government's NatureLinks initiative, providing an easy to use interactive web mapping tool that can be used by winegrowers and winemakers to create and customise maps with information for their own properties and surrounding areas of interest.

NatureMaps improves environmental information resource access for the SA wine industry.

www.environment.sa.gov.au/naturelinks/index.html

Leading Environmental Practice

KEEPING OUR MEMBERS INFORMED

CASE STUDY—Orlando Wines

Jacob's Creek is a tributary of the North Para and sits within the Mt Lofty Ranges. Since 1997, Orlando Wines has been working in conjunction with other landowners and the Natural Resources Management Board to manage the Creek and parts of the Jacob's Creek catchment.

The management plan has included extensive clearing of exotics, such as ash and olive trees, both of which were introduced by Europeans and thrive in the waterways providing poor habitat and few food resources for native animals.

The clearing of regrowth of exotic species remains an ongoing project, travelling up through the catchment zone. In addition extensive new plantings of native Australian plants and the development of native vegetation corridors has also been an important part of realising the overall objective to maintain and improve biodiversity in the fragile Creek system.

Orlando Wines have made a conscious decision to remove two large tracts of land (Menge's Island and Centenary Hill) that sit in the Jacob's Creek catchment from agricultural production and return these areas to conservation as flora and fauna reserves.

This project is a once in a generation opportunity to return a significant amount of land to native vegetation in a region that has less than 13% of its pre-European native vegetation remaining.



Jacob's Creek where Orlando Wines has been working to remove invasive species such as ash and olives

Need help or have some feedback?

Please contact SAWIA: Mark Gishen, Position, on 8222 9277 or mark@winesa.asn.au

South Australian Wine Industry Association Incorporated

1st Floor Industry Offices, National Wine Centre, Botanic Road, Adelaide SA 5000.

Web: www.winesa.asn.au

Acknowledgement

This document is based on "The Nature of Our Business" (unpublished) - a document produced by the Australian Conservation Foundation / Southcorp Alliance

